[NAME OF THE DOCUMENT] Abstract

[SUMMARY]

[PROBLEM TO BE SOLVED]

To obtain a high-luminance group-III nitride semiconductor light-emitting device by eliminating crystal lattice mismatch with substrate crystal and using a gallium nitride phosphide-based light emitting structure having excellent crystallinity.

[MEANS TO SOLVE THE PROBLEM]

A gallium nitride phosphide-based multilayer light-emitting structure is formed on a substrate through a boron phosphide (BP)-based buffer layer. The boron phosphide-based buffer layer is preferably grown at a low temperature and rendered amorphous so as to eliminate the lattice mismatch with the substrate crystal. After the amorphous buffer layer is formed, this is gradually converted into a crystalline layer to fabricate a light-emitting device while keeping the lattice match with the gallium nitride phosphide-based light-emitting part.

[SELECTED DRAWING] Fig. 2